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09/818,399	03/27/2001	Takayuki Iyama	450100-03044	2792

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EXAMINER

EDWARDS, PATRICK L

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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DETAILED ACTION

1. The response received on 12-27-2006 has been placed in the file and was considered by the examiner. An action on the merits follows.

Response to Arguments

2. The arguments filed on 12-27-2006 have been fully considered. A response to these arguments is provided below.

35 USC 112, Second Paragraph Rejections

Summary of Argument:

Applicant traverses the 112(2) rejection and argues that claim 4 is not inconsistent with claim 1.

Examiner's Response:

Applicant's arguments have been fully considered but are unpersuasive. This rejection will be repeated below.

Prior Art Rejections

Summary of Argument:

Applicant has amended the claims to recite that the alpha value is a single specified value. Applicant has further amended the independent claims to recite that the arithmetic means "eliminat[es] a need for setting a blending coefficient for every picture elemenet." This second limitation appears to follow logically from the first, and does not limit the claim any further.

Examiner's Response:

Kurtze discloses this added limitation, for example at col. 3 lines 60-61. This brief analysis is incorporated into the below rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites that the blending coefficient, alpha, is set at zero when a pixel is zero, and sets alpha at unity when said specific picture element is other than zero. Claim 1, which is the parent claim, is in stark contrast to claim 4 because it requires that the alpha value be "proportional" to a value of a pixel.

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In the “remarks” section (from 07-14-2006), the applicant states that the following in reference to the application of the prior art reference MacInnis (USPN 6,573,905) to claim 1: “This method sets alpha to 0 when a comparison is positive, otherwise alpha is set to 1. Applicants submit that this method is not setting alpha to a value proportional to a value of a specific picture element component.”

The above statement from the applicant is quite clear. The claim 4 limitation is inconsistent with claim 1.

Claim 2 is rejected because the phrase “recorded at said specified value” is unclear as currently recited. Specifically, it is unclear what “said specified value” the claim is referring to. Claim 1 recites that the “specified value” can take on 2 forms, and so it is unclear whether the “specified value” from claim 2 is supposed to be 0 or is supposed to be a value proportional to the pixel.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102/103 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 7-9 is rejected under 35 U.S.C. 102(b) as being anticipated by Kurtze et al. (USPN 5,644,364), or in the alternative, is rejected under 35 USC 103(a) as being obvious in view of Kurtze.

Regarding claim 7:

Kurtze discloses a method for synthesizing two images comprising the following steps.

- setting a blending coefficient alpha to a specified value for each of a plurality of specific pixels of a first image [Kurtze col. 3 lines 41-49].
- wherein the specified value is proportional to a value of a specific pixel component of the plurality of specific pixels of the first image included in pixel components A of a first image when said value of the specific pixel is not zero [Kurtze col. 4 lines 3-27: In the situation where $\|Kc-U\|$ is between D1 and D2, we know that the value of the specific pixel is not zero. In this situation, the “value of [alpha] is determined according to this value.” Thus, we know that the alpha value is proportional to the value of U.]
- wherein said specified value is set to zero when said value of the specified pixel element is zero [Kurtze col. 4 lines 3-13: The reference describes setting parameters a key point Kc. If Kc is set to be a maximum

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value of 255, then the value of $\|Kc-U\|$ will always be greater than D2 when the pixel value is zero. When $\|Kc-U\|$ is greater than D2, then alpha is set to the minimum possible value of zero].

- performing an operation on each of the pixel components A of the first image, and each of a plurality of pixel components B of a second image in accordance with the specified value of the blending coefficients alpha (which has a value between 0 and 1) as follows: $(A * \alpha + B * (1 - \alpha))$ [Kurtze col. 3 lines 41-58]

Regarding claim 1:

Kurtze also discloses an apparatus for performing this method (see Kurtze Fig. 2). Further regarding claim 1, Kurtze discloses performing said operation on all the pixel element components A and the pixel components B of a pixel that has the specific pixel component representing the predetermined value by using said blending coefficient alpha set by said coefficient setting means [Kurtze col. 3 lines 41-58]

Regarding Dependent Claims:

Regarding claim 2, the 112(2) problems associated with this claim are noted above. Kurtze discloses that the transition is defined by upper and lower limits. Kurtze discloses that the alpha value assumes a value when a value is outside the specified range (Kurtze col. 4 lines 53-55)

Regarding claim 3, Kurtze discloses a luminance component Y.

Regarding claim 4, the 112(2) problems associated with this claim are noted above. Furthermore, Kurtze does disclose the situation where the blending coefficient is set to be "the maximum value possible."

Regarding claim 5, The limitations of this claim have already been addressed with respect to claim 1. Indeed, it does not appear that claim 5 does much—if any—to further limit claim 1.

Regarding claim 8, Kurtze discloses that the pixel component is a color component.

Regarding claim 9, Kurtze discloses that the relationship is set by a user (Kurtze col. 4 line 5).

7. Claims 6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtze in view of well known prior art.

Regarding claim 6, Kurtze discloses the YUV format, but it would have been obvious to use the ITU-R601 format instead. The ITU-R601 format is well known in the field (official notice) and it would have been obvious to use the claimed invention in such a manner. Such a modification would have allowed for the use of the claimed image synthesizing apparatus in an additional image format—thereby making the apparatus more robust.

Regarding claim 9, Kurtze discloses that the user selects the relationship between the pixel components and the specified value. However, it would have been obvious to have this relationship pre-set. Such a modification would have allowed for an additional embodiment in which a user's input was not required during the operation of the apparatus.

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Regarding claim 10, this claim is overlapping in scope with claim 9 because a user selection can be preset. Thus, the above analysis from claim 9 is incorporated herein..

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick L Edwards whose telephone number is (571) 272-7390. The examiner can normally be reached on 8:30am - 5:00pm M-F.

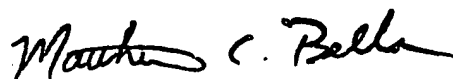
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick L Edwards

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